

PATENT  
Serial No. 10/523,386

Amendment in Reply to Final Office Action mailed on October 25, 2006

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) ~~Optical~~ An optical disk system comprising:

at least one photo detector for detecting at least a part of said optical disk and in response generating detection signals; ~~and comprising~~

at least one variable gain amplifier for amplifying detection signals and forming amplified detection signals; and comprising

at least one slicer for slicing the amplified detection signals; and, characterized in that

~~said optical disk system comprises~~ at least one generator in a feedback path between said at least one slicer and said at least one variable gain amplifier for controlling said at least one variable gain amplifier non-linearly; ~~and~~

~~said generator comprises a converter for converting voltages~~

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~~into currents, a further converter for converting voltages into currents, and at least one capacitor located between both converters wherein said at least one generator comprises two converters interconnected with two connections, and at least one capacitor connected between the two connections.~~

Claims 2-3 (Canceled)

4. (Currently Amended) ~~Optical~~ An optical disk system according to claim 3, characterized in that comprising:  
at least one photo detector for detecting at least a part of said optical disk and in response generating detection signals;  
at least one variable gain amplifier for amplifying the detection signals and forming amplified detection signals;  
at least one slicer for slicing the amplified detection signals; and  
at least one generator in a feedback path between said at least one slicer and said at least one variable gain amplifier for controlling said at least one variable gain amplifier non-linearly;  
wherein said at least one photo detector comprises at least

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four subdetectors, with said optical disk system comprising per subdetector a variable gain amplifier, a slicer and two converters with a capacitor.

5. (Currently Amended) ~~Circuit~~ A circuit for ~~amplifying~~ amplifying and slicing detection signals originating from at least one photo detector in an optical disk system and comprising:

at least one variable gain amplifier for amplifying detection signals and forming amplified detection signals; ~~and comprising~~

at least one slicer for slicing the amplified detection signals; ~~and, characterized in that~~

~~said circuit comprises~~ at least one generator in a feedback path between said at least one slicer and said at least one variable gain amplifier for controlling said at least one variable gain amplifier non-linearly; ~~and~~

~~said generator comprises a converter for converting voltages into currents, a further converter for converting voltages into currents, and at least one capacitor located between both converters~~ wherein said at least one generator comprises two converters interconnected with two connections, and at least one

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capacitor connected between the two connections.

Claims 6-7 (Canceled)

8. (Currently Amended) ~~Method~~ A method for use in an optical disk system and comprising the ~~steps~~ acts of:

detecting at least a part of said optical disk via at least one photo detector and in response generating detection signals; and

amplifying the detection signals via at least one variable gain amplifier to form amplified detection signals; and

slicing the amplified detection signals via at least one slicer; ~~and, characterized in that said method comprises the step of~~

controlling said ~~amplifying~~ at least one variable gain amplifier non-linearly via at least one generator located in a feedback path between said at least one slicer and said at least one variable gain amplifier;

wherein said at least one generator comprises two converters interconnected with two connections, and at least one capacitor

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connected between the two connections.

Claims 9-10 (Canceled)

11.(New) The optical disk system of claim 1, wherein said at least one photo detector comprises at least four subdetectors, with said optical disk system comprising, per subdetector a variable gain amplifier, a slicer and two converters with a capacitor.

12.(New) The optical disk system of claim 1, wherein said two converters are configured to convert voltages into currents.

13.(New) The optical disk system of claim 4, wherein said two converters are interconnected with two connections, and said capacitor is connected between the two connections.

14.(New) The optical disk system of claim 4, wherein said two converters are configured to convert voltages into currents.

15.(New) The circuit of claim 5, wherein said at least one

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photo detector comprises at least four subdetectors, with said optical disk system comprising, per subdetector a variable gain amplifier, a slicer and two converters with a capacitor.

16.(New) The circuit of claim 5, wherein said two converters are configured to convert voltages into currents.

17.(New) The method of claim 8, wherein said at least one photo detector comprises at least four subdetectors, with said optical disk system comprising, per subdetector a variable gain amplifier, a slicer and two converters with a capacitor.

18.(New) The method of claim 8, wherein said two converters are configured to convert voltages into currents.

19.(New) A circuit for amplifying and slicing detection signals originating from at least one photo detector in an optical disk system and comprising:

at least one variable gain amplifier for amplifying the detection signals and forming amplified detection signals;

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at least one slicer for slicing the amplified detection signals; and

at least one generator in a feedback path between said at least one slicer and said at least one variable gain amplifier for controlling said at least one variable gain amplifier non-linearly;

wherein said at least one photo detector comprises at least four subdetectors, with said optical disk system comprising per subdetector a variable gain amplifier, a slicer and two converters with a capacitor.

20. (New) The circuit of claim 15, wherein said two converters are interconnected with two connections, and said capacitor is connected between the two connections.

21. (New) The circuit of claim 15, wherein said two converters are configured to convert voltages into currents.

22. (New) A method for use in an optical disk system and comprising the acts of:

detecting at least a part of said optical disk via at least

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one photo detector and in response generating detection signals;

amplifying the detection signals via at least one variable gain amplifier to form amplified detection signals;

slicing the amplified detection signals via at least one slicer; and

controlling said at least one variable gain amplifier non-linearly via at least one generator located in a feedback path between said at least one slicer and said at least one variable gain amplifier;

wherein said at least one photo detector comprises at least four subdetectors, with said optical disk system comprising per subdetector a variable gain amplifier, a slicer and two converters with a capacitor.

23.(New) The method of claim 17, wherein said two converters are interconnected with two connections, and said capacitor is connected between the two connections.

24.(New) The method of claim 17, wherein said two converters are configured to convert voltages into currents.